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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,351	08/03/2006	Friedhelm Schmitz	2003P17919WOUS	8666

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SIEMENS CORPORATION
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EXAMINER	
DUONG, THO V	
ART UNIT	PAPER NUMBER
3744	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/588,351	SCHMITZ, FRIEDHELM	
	Examiner	Art Unit	
	Tho v. Duong	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-18 and 20-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-18 and 20-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendment filed 6/04/08 is acknowledged. Claims 12-18 and 20-24 are pending.

Response to Arguments

Applicant's arguments filed 6/4/08 have been fully considered but they are not persuasive. Applicant's argument that PTFE layer of Montgomerie's 386 is not a biocide layer, has been very carefully considered but is not found to be persuasive. Applicant has not particularly defined the term "biocide" to bear any particular structure of the layer. Applicant is reminded that the examiner must interpret the limitation as broadly as it reasonably allows. Therefore, it is reasonably to consider the PTFE layer to read as "biocide layer" since PTFE is capable of reducing adhesion of liquid on its surface, which in turn reduces the risk of accumulating organisms on the surface. Regarding claim 12, applicant's argument that reference to Montgomerie fails to disclose that a layer is formed by a plurality of sub-layers, has been very carefully considered but is not found to be persuasive. Montgomerie clearly discloses (page 1, lines 44-50) that the layer is formed of a porous metal coating and a PTFE layer on the tube. Therefore, the layer is formed of a plurality of sub-layers. Regarding claim 14, applicant's argument that Montgomerie fails to disclose that each coating is produced differently from the other, has been very carefully considered but is not found to be persuasive. The method of forming the device is not germane to the issue of the patentability of the device itself. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made

by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). In this case, the heat exchanger tube of Montgomerie is the same as or obvious from the heat exchanger tube as claimed, the claim is unpatentable even though the prior product was made by a different process.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "the second biocidal layer" in lines 13-14. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Montgomerie et al. (GB 1,042,386). Montgomerie discloses (page 1) a condenser comprising a plurality of heat exchanger tubes having an outside surface and an inside surface that rout a cooling medium

long the inside surface of the tube, wherein a first layer and a second layer of PTFE, which are capable of reducing an adhesion of the fluid, are arranged on the outside and inside surface of the tube respectively. Regarding claims 13, Montgomerie discloses (page 1, lines 44-50) that the layer includes a plurality of sub-layers (coatings). Regarding claim 14, applicant's argument that Montgomerie fails to disclose that each coating is produced differently from the other, has been very carefully considered but is not found to be persuasive. The method of forming the device is not germane to the issue of the patentability of the device itself. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). In this case, the heat exchanger tube of Montgomerie is the same as or obvious from the heat exchanger tube as claimed, the claim is unpatentable even though the prior product was made by a different process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomerie in view of Austin et al (US 4,564,537) or Brown et al (CH 286241). Montgomerie substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the inner layer is a silicate network. Both Austin and Brown (column 5, lines 9-69) discloses a layer of silicate network material is coated on a surface of the tube for a purpose of providing anti-fouling coating for the tube surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use either Austin or Brown's teaching in Montgomerie's heat exchanger for a purpose of providing an anti-fouling coating for the tube surface.

Claims 17,18,21, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomerie in view of Austin and/or in view of Yazaki (US 3,941,087) and further in view of Brown et al. (US 5,083,606).. Montgomerie substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the tube comprises a longitudinal welding seam on top of the tube and a region proximate to the weld seam which is free of biocidal layer and a remaining region of inner layer starting at three o'clock position and nine oc'clock position. Yazaki discloses (figure 2) a tube having a longitudinal seam (7) located at an upper most position of the tube of the tube cross section and a region (outer side of the tube) proximate to the weld seam is free of the inner layer; and a remaining region remote form the weld seam including a region starting at three o'clock position continue to nine o'clock position is arranged with the inner layer (17). The tube of Yazaki includes a welding seam is for an obvious reason so that the tube can be formed by bending a flat sheet of material. It would

have been obvious to one having ordinary skill in the art at the time the invention was made to use Yazaki's teaching in the heat exchanger of Montgomerie for a purpose of forming the tube by bending a flat sheet of material. Montgomerie substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the heat exchanger system further comprises a heat source, a boiler, a steam turbine. Brown discloses (figures 2 and 5) a steam power heat exchanger system further comprises of a heat source (113), a boiler, and a steam turbine for a purpose of forming a complete steam power system to drive a generator to generate electricity. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Brown's teaching in the combination device of Montgomerie of either Sandberg or Keyes for a purpose of forming a complete steam power to drive a generator to generate electricity.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tho v Duong/
Primary Examiner, Art Unit 3744